

RECEIVED

MAR 04 2002

TECH CENTER 1600/2900



1645

RAW SEQUENCE LISTING

DATE: 02/19/2002

PATENT APPLICATION: US/09/938,842A

TIME: 12:28:02

Input Set : F:\SCRIP1300-3_SUBST_SEQUENCE_LISTING.txt

Output Set: N:\CRF3\02192002\I938842A.raw

PS

1 <110> APPLICANT: Harper, Jeff
 2 Kreps, Joel
 3 Wang, Xun
 4 Zhu, Tong
 6 <120> TITLE OF INVENTION: STRESS-REGULATED GENES OF PLANTS, TRANSGENIC PLANTS
 CONTAINING

ENTERED

7 SAME, AND METHODS OF USE
 9 <130> FILE REFERENCE: SCRIP1300-3
 11 <140> CURRENT APPLICATION NUMBER: US 09/938,842A
 12 <141> CURRENT FILING DATE: 2001-08-24
 14 <150> PRIOR APPLICATION NUMBER: US 60/227,866
 15 <151> PRIOR FILING DATE: 2000-08-24
 17 <150> PRIOR APPLICATION NUMBER: US 60/264,647
 18 <151> PRIOR FILING DATE: 2001-01-16
 20 <150> PRIOR APPLICATION NUMBER: US 60/300,111
 21 <151> PRIOR FILING DATE: 2001-06-22
 23 <160> NUMBER OF SEQ ID NOS: 5379
 25 <210> SEQ ID NO: 1
 26 <211> LENGTH: 636
 27 <212> TYPE: DNA
 28 <213> ORGANISM: Arabidopsis thaliana
 30 <400> SEQUENCE: 1
 31 atgaggaaaa caccatctct cggagcggaa ctgctctgct cgtattctct ctctgatcca 60
 33 totccatcac catctccgtt ctccagtga atggagattc cggaggggac accaaaagat 120
 35 tcagaaaagg ccactgaaca agatacagta tcatcaattg gggtaaagaa acctccagt 180
 37 gactctccag ccactactaa tgcctgtagc ggtcgacttg tttatgtccg gagaagagt 240
 39 gaggttgaca catccaaagc cgcctgtagc actactaatc cgaatccgcc tctactaag 300
 41 gcaccacccc agataccttc atcaccgcga caggcacagg cacaggaacc aaccctacc 360
 43 agccataagt tagactggga agagcggtac ctcatcttc aaatgcttct taacaagctt 420
 45 aatcaatctg atcggaccga tcatgttcag aatatgttct ctctgttatt agtgctttgg 480
 47 tcaactttcct ccgccgagct tagcaagcat gctgttgact tggaaaagag gtctattcag 540
 49 ttctctctcg aggaagcgag agagatgcag cgcgtagcag ctttaaactg gttaggaagg 600
 51 tctgtgaata gtataaaatc tacatcaa at gagtga 636
 54 <210> SEQ ID NO: 2
 55 <211> LENGTH: 1623
 56 <212> TYPE: DNA
 57 <213> ORGANISM: Arabidopsis thaliana
 59 <400> SEQUENCE: 2
 60 atgggtgata tgcaagttgg tgttgccact attgacgata aggggtttta tgggttgatg 60
 62 gaggatacac aagtaaaggc ggtggcttca tcgaaccgga gcttgcaagt gtcggtttct 120
 64 tttggtaggt ttgagaatga ttcactttca tgggagaagt tctcagcttt ctctccaaat 180
 66 aagtacttgg aggaagttgg caagtgtgct actccaggat cagttgtctc aaagaaggct 240
 68 tattttgaag ctcatataa gaagattgct gagaggaaag ctgagattat agatcaggag 300
 70 aaactaatgg acgagaacgc atcttttaga tctattgttt cagatcagga gagtgtggaa 360

RAW SEQUENCE LISTING

DATE: 02/19/2002

PATENT APPLICATION: US/09/938,842A

TIME: 12:28:03

Input Set : F:\SCRIP1300-3_SUBST_SEQUENCE_LISTING.txt

Output Set: N:\CRF3\02192002\I938842A.raw

```

72 tgcgaaaatg. gcgggggtggt ggtagagtct gaggttgata atggttgtaa tgggcaatta 420
74 tcttgatgatg aagataagca tgtgactgac attactgcta aagtgaatca agtgagtatt 480
76 gatgagagta atgaagaaac tattgttgtc aaggaatgtc aaagctcggg tgatacgggtg 540
78 aaagacgaag tcaaggacag tgtggatagt ccagtattgg agaaagcaga ggagattgct 600
80 cttgaggaag agaagataga aatggtcgtc catgtgcagg agagatcaga agagggtttta 660
82 caagaggatg agaaagaaga gacagaagta agagaagaag tgagagacga catttcatta 720
84 caaaatgata ctgtggatgc aatgaaacg acgaagaagg tgggaagaa agagaaaaag 780
86 cctaattctaa tcaagaagaa tgatggaaat gtgcggatta atcctacgag aggcctctctt 840
88 aagcctaate aggtggggggg aaaaccggaa actaacaaaa ctgtaacgag taggaaaact 900
90 ccaccgagca aggagatgaa aaacatgatg aaagcaacaa agaaaccagc agcaccaatg 960
92 tcaaaatccc cacaagggtt tgcaactcca agagtgtaca agccagctcc aacaaaaact 1020
94 tcattgtcta catctcactc ttcggtgaag aaggaaaaagg tctcgccttt actgagtaaa 1080
96 aaacaaaccg ctccaaagtc attgcatatc tctatgaatc tggatccacc tgcttccgat 1140
98 cctactgctc ttccaagcac tagaaaatca ttgatcatgg agcgaatggg agataaagac 1200
100 attgtcaaac gtgcattcaa atcatttcaa aagagtttgg acttcaagtc ttctgtcgac 1260
102 gggctaaaca cagcagtaaa gcagaatcct gcaaagccaa caattattcc gtcagtagct 1320
104 actcgtcaga aggaaaatgg caggcctaca aaagcaagta gcatggagaa gagaagtggg 1380
106 actaccgcct atcgttctcc atctcatgga ctcaaaagca atgaaaccgc tgagaaacaa 1440
108 caaaaggaga ttccaagtc tgggtgcaaga cctttagaga agacacgctt gcagaagaac 1500
110 ccaaaggcag gagtgtattga tgccaaaacg cggaggggact ctcttaatcc gaaagcaaaa 1560
112 cctgtgcagg gttctcttcc aatgcggacc gtatcgaaaa gctctttaga caaagtgtta 1620
114 tga 1623

```

117 <210> SEQ ID NO: 3

118 <211> LENGTH: 1401

119 <212> TYPE: DNA

120 <213> ORGANISM: Arabidopsis thaliana

122 <400> SEQUENCE: 3

```

123 ttgggtggaga tgatgagatc agagaatcat ctaagacaag ctctgaagca tcggaacaac 60
125 aattttccgg tgaagttaga gatcattgaa gattctcttg aagaagaaca cgctcctctc 120
127 aacaaacgat ccaagctatg gagcaatgga acaagtgtct ctaagtttag tctacttgaa 180
129 gagccaagtc ctttgggggtt gagtttaaaa aagagcccat cttttcaaga actgattgag 240
131 atgaaacttt ctcaaagtgg tgatgactca aattcgggta agaaagaaag ttttggtttt 300
133 ggtggtgtag gaaccgttga gaagcttaaa gcttctaact ttctgctac tattctcagg 360
135 attggtcaat gggagtataa gtcaaggatg gaaggtgatt tgggtggcgaa atgttacttt 420
137 gcaaaacata aacttgtgtg ggaagtgttg gaacaaggtc ttaagagcaa gattgagatt 480
139 cagtgggtctg atattatggc tttgaaggct aatttgccag aggatgaacc tggaaacctg 540
141 actattgtgc tggctaggcg gccattgttt ttcagagaaa ctaatccgca gcctagaaaa 600
143 catactttgt ggcaggcgac atcggatttt actgatggtc aagctagcat gaacaggcaa 660
145 cattttctgc agtgtccccc agggattatg aacaaacatt ttgagaagct tgttcaatgt 720
147 gatcatcgct tgttctgtct aagccggcag ccagagataa acttggccgc accgttcttt 780
149 gattcacgac tatctatatt tgaggatccc tcagtgtctg gatctcataa tattgcatct 840
151 cctgttgggg ctcatgcatc atcagaacat gtgtctctat ctcatgacgc actatcgctt 900
153 agctcagtga tggatgctcg tgcaatcgaa ggagttgggt gttccattga ttcgaggaat 960
155 acaaaccggt ggagtcatg aaaaatgcct ggactacacc aatctatctc gatgaacgat 1020
157 ttcttaactg ttttgcaga tcaagcttgt gaaaacaacc aagagtttga ggaaatgaaa 1080
159 cagttactgc taagtacaaa cactcaaacc gatccatctg atgagaagtc tgtcatgtca 1140
161 aaggtgaatt ctttctgcaa cctcttgcaa tctgctgcaa actcacagct caatatcgaa 1200
163 actgctgata ccgaaagagt tgttggggtc gataacaata gacacatgcc cgaaggaggc 1260
165 aaaagagttg ttgaccctgc ttcaagcagc aagccactac aagggatgtc aaggaaagac 1320

```

RAW SEQUENCE LISTING

DATE: 02/19/2002

PATENT APPLICATION: US/09/938,842A

TIME: 12:28:03

Input Set : F:\SCRIP1300-3_SUBST_SEQUENCE_LISTING.txt

Output Set: N:\CRF3\02192002\I938842A.raw

```

167 tcattcagtg atttgctggt gcaccttctt cgaatcacat cactcccaaa gttcttgttc 1380
169 aacatttcag aagaagacta g 1401
172 <210> SEQ ID NO: 4
173 <211> LENGTH: 444
174 <212> TYPE: DNA
175 <213> ORGANISM: Arabidopsis thaliana
177 <400> SEQUENCE: 4
178 atgaagcatc tcatccgcgc cctctctaga gtcgcgcgact catcctccga attctccatc 60
180 cgcggttcca cctcctcctt ccgcaaccgt cgcggtcacc atcgtctcca cgcgcgcgcg 120
182 cctccgtggt caatatgtcc agctagaaga gtcaacaccg tccccgctgg tcacgtacct 180
184 gtctacgtcg gcgaggagat ggagaggttc gtggttagcg cagagcttat gaaccaccgc 240
186 atcttcgttg gtttgctaaa ccgatccgct caagaatacg gttacgctca gaaaggagtt 300
188 cttcatatcc cttgccacgt catcgtgttt gagcgcgtgg tggaaacgct ccggttgagg 360
190 gggtttgaag ggtccggtga tctagagaat cttgtggctt cggttgcttc cgggtgatgag 420
192 ttgatacctg aaactacaga gtag 444
195 <210> SEQ ID NO: 5
196 <211> LENGTH: 4677
197 <212> TYPE: DNA
198 <213> ORGANISM: Arabidopsis thaliana
200 <400> SEQUENCE: 5
201 atggcaccga ggtcaagcaa agggaaatca aacaacaaag ggaaaggagg agataagaag 60
203 aagagagacg ataaactgtt ggctccgagt ctggttgaaa tcacagtcac cactccgtac 120
205 gaaactcaag tgatactcaa gggagtttct actgacaaaa tcattgacgt gagaaggctt 180
207 ttagcatctc acgttgagac ttgccatttc accaactatt ctctctocca taagggtgaag 240
209 gggcataaat tgaatgacaa catccaagta ctttccctca agccttgttt tctccgcatg 300
211 attccagagg agtatctaga ggaaagtcag gcgttgactc aggtacggag agtcacgac 360
213 attgtagcat gcaccaccag gttcttctcc aaatctccca acaaattccat cgttgccggc 420
215 aatgccaatc gcacaccggc gccggaaggc ctgcacatgg tcgctatcca caccacccc 480
217 aaactttctc agttctacga gttcttctcc attcaccacc tatctctcc gattcttcat 540
219 ttgaagaaag ttgatggtga agaagctgga gagaagcgtg atggtgacta ttttggactt 600
221 aagggttaaga tttgcaatgg caagggtata catgtgattg cttctgtaaa agggttcttc 660
223 gccgttggaa aacagctctc acattgtcat tccattgttg atttgctcca gaatgtcagc 720
225 aatgcttttg ccaaggcata tgaatcttta atgaaagctt tcaactgatc gaataagggtg 780
227 gctgattttg gcaacctccc gtttggatta cgtccaaaca catggcttgt accttctcct 840
229 gtttctgagt ctgcttctcc tttaccaaca gaggatgaac attggggcgg gaatggtgga 900
231 ggtcagggga gaaatggtga atatgatcat cgaccttggg cggctgagtt ttctgtatta 960
233 gctacgcttc cttgcaagac tgaggaggag agagttattc gagataagaa agcttttttg 1020
235 cttcatagcc agtttattga tacctcagtg caaagagctg ttagagccat ttgcaacgtg 1080
237 atggatacta atcaacaaac aagtgggact actgacttac ctgctggctc gatccttctt 1140
239 gaggatcatg ttggagattt gtctattgtt gtaaaacgtg atatagccag ccttgactca 1200
241 aagcctgaag ctacatttca aaatgatgca tttgttctat catccgagga acttgctgaa 1260
243 aggaatttgc taaaagggat tacagctgat gagagtgtga ttgttcatac tataaccagt 1320
245 gaagaaaaaa atatccagga tactccggct ttaggcaaag ttattgtaag acagtgtgga 1380
247 tatactgcgg tggtaaatgt caagggtcaa actcagaagg caatgtctga tttccgtgat 1440
249 attttaatcg atgacctgcc ggatggagga gctaattgct ttaaccttaa cagcttacgg 1500
251 gtagagtttc acaggcccca tagtgttggg acatctgtag agaaccagcc cacacagctt 1560
253 gattgggatg atttagaatc ttatagatgt attatacagg agttagtaaa aattaactta 1620
255 acaaagttag aagaaacaag ggtatcttct gtaagacca tcagatggga actcggttct 1680
257 acctgggttc agcatctaca gaagaaagaa acagacgtct gtggaaagcc tgcaactaat 1740

```

RAW SEQUENCE LISTING

DATE: 02/19/2002

PATENT APPLICATION: US/09/938,842A

TIME: 12:28:03

Input Set : F:\SCRIP1300-3_SUBST_SEQUENCE_LISTING.txt

Output Set: N:\CRF3\02192002\I938842A.raw

| | | | | | | | |
|-----|-------------|------------|-------------|------------|-------------|-------------|------|
| 259 | gatgaaactg | aactttcagt | taaaggcttg | ggaaaacaat | ttaaagatct | aaagagcaaa | 1800 |
| 261 | agtaagaaat | cagaaaatat | aagtgccgtg | aatgaaaaag | ataccagact | gcacgagtta | 1860 |
| 263 | aatgaggagg | atgatctagg | gcagaaaagc | attgatggac | tctttactga | actgaaggaa | 1920 |
| 265 | ctgctttctg | agaagctttt | ctctcgcta | aaagaaactg | gaactggctt | ccattttaaag | 1980 |
| 267 | tcaaaagaag | agcttaccaa | tatggcatat | ggttactatg | atgaaattgc | tttgccaagg | 2040 |
| 269 | ctggtagcag | atttcgggtc | actggagctt | tctccagttg | atggtcgcac | tttgactgat | 2100 |
| 271 | ttcatgcata | taagaggact | ccaaatgcgt | tctctaggac | atgtggctaa | acttgctgag | 2160 |
| 273 | aaacttcctc | atatacagtc | cctctgtatt | catgagatga | ttacaagagc | tttcaagcat | 2220 |
| 275 | cttcttaggg | cgggttattg | atctgttaac | aatatggcag | agctacctgt | ggcggttggg | 2280 |
| 277 | ttagaactag | tttcaagaga | ttttgacttc | gattctccaa | atcctttcat | gagctctgac | 2340 |
| 279 | attattggat | tggtagctgt | gtgcaagcat | gtgctgtgta | tttcatctga | cgggaagaca | 2400 |
| 281 | ctcttgagg | catcaaaact | tgctcttgac | aaaggaaaac | tagatgatgc | tgtgagctat | 2460 |
| 283 | ggaacaaagg | cattagtcaa | gatgattgct | gtctgtgggc | cttatcatag | aaatactgca | 2520 |
| 285 | tgtgcgtaca | gtcttctcgc | agttgtacta | taccacactg | gcgattttta | ccaggcaaca | 2580 |
| 287 | atatatcagc | agaaggctct | agatataaat | gagagagaac | ttggtctcga | ccatcccagc | 2640 |
| 289 | actatgaaaa | gctatgggga | tctttctgta | ttttactatc | gtcttcaaca | ttttgaattg | 2700 |
| 291 | gcactaaaa | atgtgaaccg | ggcgttggtt | cttcttcaat | tcacttgtgg | gctatctcac | 2760 |
| 293 | ccaaataactg | ctgccacata | tatcaatgtg | gctatgatgg | aaaaagaagt | aggggaatgat | 2820 |
| 295 | catctagctc | taaggtacct | gcatgaagct | ctaaagagca | ataaaagatt | gctaggagct | 2880 |
| 297 | gaccatattc | agactgcggc | aagctatcat | gcaatagcag | tggctctctc | tttcatggaa | 2940 |
| 299 | gcacattcoat | tgagtgtgca | acatgaacaa | actacacttc | agatacttac | tgcaaaactt | 3000 |
| 301 | ggagcagatg | accttcgtac | acaggatgct | gctgcatggc | tcgaatattt | tgaatcaaga | 3060 |
| 303 | gccatagagc | agcaggaagc | aggccgaaat | ggaatcccaa | agcctgatgc | ttccatcgcg | 3120 |
| 305 | agcaaaggcc | accttagtgt | atcagatctc | ctggactata | taagttctga | tccagacact | 3180 |
| 307 | aagggaaatg | ttgctcacag | gaaacatcgg | cgtgccagga | tattacaggt | caatgataag | 3240 |
| 309 | gttgcatcag | ctgatgatga | cgcccataga | gttgcttcac | agattgacat | tgttacatgg | 3300 |
| 311 | aacaatgttg | cagaagcgga | tgtcactaag | agtaggagcg | aagtaaatga | tcctgatata | 3360 |
| 313 | gttggttgata | agaccaatat | tgagacaggt | gatattgtag | tacacaggct | aaatgtagac | 3420 |
| 315 | aggcaaaactg | tggaagagtc | aacttttagac | gagggctggc | aagaggcata | ctcaaagggg | 3480 |
| 317 | agatccggaa | atgggtgctg | aaggaaatcc | agacaaaggc | agcctgatct | tatgaaaaag | 3540 |
| 319 | agaatgttgc | ttaataaaca | tcacaacagg | aatcaggatg | ttcagcaaca | gaatatatat | 3600 |
| 321 | tctcccttgc | agaaaacaag | caaaggaccc | tccctctcta | agtcatcacc | ccgtagggct | 3660 |
| 323 | ctaaagaatg | cagagataga | tgtcagtaca | aatacaacta | aaccacagtt | aaaggcttct | 3720 |
| 325 | ggtgctgctg | ctgtgaccag | tactactttg | gcctcaaagt | ctctctcata | caaagaggtt | 3780 |
| 327 | gctttggcac | caccaggtac | agttctgaag | ccaatgttag | aaaaattaga | actgaatttg | 3840 |
| 329 | gagagaactg | aaactcagat | atacaggact | tcaagtgcgt | catctggaga | agaaagcaag | 3900 |
| 331 | tccgacactg | taatgttgga | tttgccaatc | gaaggcacag | agcttcaactg | tgagaaacaa | 3960 |
| 333 | gaatcacaa | aaagtgtgta | gtcagtgga | aacttaacgt | cagagtctga | aggggatctg | 4020 |
| 335 | gggtccctatc | gtgggaaaaa | aacttctgat | ataagccgga | caaagctatc | agcctccgca | 4080 |
| 337 | gagccttaca | accctggagg | tttcttggtt | attgatctgc | aaagctcagc | agcaacaata | 4140 |
| 339 | ggcagctacc | caattatggt | tgcagaccct | atttctctgg | ctgtagtctt | atgtgggatt | 4200 |
| 341 | cactcaccac | catattatag | tgtatttcac | tcaaatggag | ttgggacgcc | aagaagcatg | 4260 |
| 343 | aatccagatg | caccagagtt | tgttccgaga | agatccttgc | agaatagctc | tcaacatgca | 4320 |
| 345 | ggtgaagatg | caagtgtatc | cgtcgactcc | agcagttgac | ttaaaggctga | gaaagatgca | 4380 |
| 347 | gttgatttgc | agaagcgaga | gcttgccagc | ttcatagtaa | agtcacaca | gaaagaggtt | 4440 |
| 349 | cgggctgctc | ttagcaaaac | gagccccgaa | gctgagtcag | gaggtacctc | cgaaaaggat | 4500 |
| 351 | agtgagctaa | ccgagatagt | ttatagtaga | gaagaggaga | atggagcgaa | tgcaaatgag | 4560 |
| 353 | acaaatggag | gtgaagggtt | tgtgattgtg | gcaaagaaaa | ggagaaggaa | gaacaagggtg | 4620 |
| 355 | cgacttacaa | atgttgccgc | tgggctgtac | catcaaccgt | cgtcagtttg | tgcatga | 4677 |

VERIFICATION SUMMARY

DATE: 02/19/2002

PATENT APPLICATION: US/09/938,842A

TIME: 12:28:04

Input Set : F:\SCRIP1300-3_SUBST_SEQUENCE_LISTING.txt

Output Set: N:\CRF3\02192002\I938842A.raw

L:179874 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3467

L:205495 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3913



Creation date: 12-12-2003
Indexing Officer: RROBINSON - RHODA ROBINSON
Team: OIPEBackFileIndexing
Dossier: 09938842

Legal Date: 10-20-2003

| No. | Docode | Number of pages |
|-----|--------|-----------------|
| 1 | CTMS | 2 |

Total number of pages: 2

Remarks:

Order of re-scan issued on